Lake Champlain
Fisheries Technical Committee
Meeting Minutes

September 1, 2009 - Gordon House, Grand Isle

Member Attendees: **UVM:** Ellen Marsden, **LCBP:** Eric Howe (1pm); **NYSDEC:** Emily Zollweg, Bill Schoch; **VTFWD:** Brian Chipman, Chet Mackenzie, Bernie Pientka, Kevin Kelsey, Shawn Good (*minutes recorder*); **USFWS:** Nick Staats, Steve Smith, Wayne Bouffard, Brad Young, Bill Arden; **Sea Grant:** Mark Malchoff (1pm)

Other Attendees: Bill Wellman (Trout Unlimited), Bob Qua (LCI)

2. **Minutes.** Approved minutes from June 18, 2009 meeting. Things in italics are action items and should be moved to its own section in the minutes.

Action Item: In the future, minutes will be sent around shortly after meeting, and members will comment by email to Brad.

3. **Lamprey Program Federalization Update.** Senator Leahy's office is working to move things along. Tom Berry is taking Bob Paquin's former job. Dave Tilton and Brad have a meeting with Tom Berry on Sept. 2 to discuss how to continue pursuing the federal model. We are currently seeking to reinstate language in federal legislation authorizing The Great Lakes Fishery Commission to request and budget funds to support Lake Champlain sea lamprey control. Lake Champlain lamprey control would thus be included in the GLFC base budget. Great Lakes Fishery Commission is supporting the effort.

4. **Lamoille River treatments.** Permits will be finalized soon. Impurities analysis results are back, and they were detected at far below the level of concern. We won't have to test any more batches, as long as formulation stays same. Draft staffing schedule is out – tentatively for week of September 28. Discussions on a multi-year permit for Vermont treatments have been on hold while we've been working on permits for the Lamoille River treatment. Work on the multi-year permit application will begin after the Lamoille river treatment.

5. **Lamprey Assessment 2009.** Larval assessment completed for the year. Highlights:

Putnam Creek. Settling Pond of hatchery is positive for lamprey, but half of what was there for 2005. Two tributaries to Putnam are positive for lamprey – 1) Buttermilk Brook (formerly Brevort Brook): about 3.5-km long infested section up to small falls, numbers were high, and 2) Factoryville Brook: Lots of lamprey near confluence with Putnam. Didn't sample beyond first road crossing, but lamprey were found all the way up to there. Not found at the next road crossing upstream.

Ausable River. Rte 9N bridge downstream to mouth was surveyed. Lots of ABL's in there. Need to look for suitable location for Primary Application Point. Need to still conduct larval surveys above selected AP to confirm lamprey absence.

Little Ausable & Salmon. Protocols adjusted. Instead of multiple location site surveys, the whole streams were walked. Seemed like numbers were similar as in past years. Nothing above falls in Salmon River.

LaPlatte River. Lamprey are found for about 5.5km upstream of falls to just below Spear Street. Surveyed beyond Spear Street to almost Hinesburg (total 12 km of stream) and nothing found except for the first 5.5 km above falls. From Rte 7 down was surveyed and nothing found there.

Lewis Creek. Reach 1 & 2 above and below N. Ferrisburg Falls was surveyed – larvae found above falls.
All lampreys found in Lewis & LaPlatte were similar size, ~100mm (3 year olds). Spring 2006 had high flows. Seemed like adults may have had access upstream due to high flows and produced that year-class.

Detection surveys done on NY south quadrant, from Essex ferry south, nothing found.

Ticonderoga Creek sampling. Habitat marginal. Nothing found except one sighting of unidentified (presumed) lamprey species.

6. **USACE barrier projects (LaPlatte, Little Ausable, Great Chazy).** LaPlatte most easily accomplishable barrier project. USACE 524 Money requires 35% non-federal match. Lots of Corps money available, may be more easily spent in Vermont because of match funding opportunities from various sources. Also looking for private partners to come on board (TNC, LCI). We have to demonstrate to Corp that we can provide the match, then they will start things on there side. Discussion: Are we committed to a barrier as the best solution on the LaPlatte, if we find favorable results from Stonecat mortality or distribution research? EIS commits us to reducing the use of lampricide when possible. There may be negative impacts from barrier as well. Discussions should take place on pros and cons on a barrier in this location. Feasibility study on impacts of barrier needs to be done and then weighed against chemical treatments.

Little Ausable – Lengthy discussion on using USACE money versus NY Bond Act money, designated for that project.

Action Item: Brad and Bill will investigate combining Bond Money and Leahy funds as a method to engineer and build the Little Ausable barrier as an alternative to using USACE funds at this site.

Great Chazy – still not really sure where the problem is (how are the lamprey getting through the dam). Wait a couple years to see if the new lip and the trap reconfiguration keeps lamprey from getting upstream. If they still are found above the dam, then they must be getting under the dam. Not pursuing funding on this river until we know if recent repairs solved the problem.

7. **Morpion Barrier.** The USFWS Regional Office in Hadley, MA has granted authority to the Lake Champlain FWRO to sign an MOA with the Municipality of Notre Dame de Stanbridge. Canadian lawyers and DOI lawyers have reviewed contract and OK'd it. Quebec Provincial lawyers need to sign off next, to give Mayor of Notre Dame de Stanbridge authority to sign the contract. Landowners onboard, with a lease ready to be signed. Engineering is done, blueprints will soon be sent to consultant who will then put out the project for construction bids. Still hopeful for construction to commence this fall.

8. **Leahy Appropriation.** We have more money in account than we anticipated. We can spend some of that money down for things we need. All 3 agencies should be involved to come up with agreed-upon list of supplies we need, equipment upgrades etc., for lamprey control right now. Steve has email from Lance Durfey listing his thoughts on things that could be purchased to improve control treatments. USFWS is using some APHIS money to purchase lamprey control supplies as well.

Action Item: Emily will coordinate on the NY side to brainstorm equipment needs list. Brian for VT, Steve for USFWS.

9. **Forage Fish Assessment.** Nick Staats handed out some tables and graphs showing smelt CPUE trends for standard trawling stations (see attachments on pages 6-10). Main Lake CPUE numbers for smelt were very high compared to previous years. Malletts Bay & Northeast Arm were extremely low compared to previous years. Lots of bigger smelt in Main Lake compared to previous years. Floating gillnets were also set to assess alewife (11 this year, 7 last year). Large numbers of alewifes were collected in the nets at the main lake stations. Hydroacoustics data processing not completed yet. Adult smelt usually show up below the thermocline and YOY smelt and other species generally appear above. Northeast Arm, smelt numbers seemed to go down a bit below thermocline and targets above thermocline increased. Malletts Bay – lower numbers of smelt below thermocline, but increasing numbers of targets above thermocline – but trawling and gillnets didn't find many YOY smelt in these locations. This year, YOY smelt were difficult to find in most stations, absent completely in several.

10. **Salmonid Returns (Winooski/Boquet).** Winooski – fish lift begins fall operation on September 15th. Nick Staats reported that the lift operated for one night (August 31) to see if any salmon were present; no salmon were trapped. Everything is working and ready to go. Boquet – Steve said they started this week (Monday and Friday) it will be checked this week. Monday there were no fish. Steve wondered if we wanted to do thiamine injections at the fish lifts. Kevin Kelsey says it is easy and inexpensive, and is 100% effective within 12-14 days at making eggs viable. Ellen's research showed that eggs and fry from about 20% of adult salmon showed thiamine deficiency symptoms. But Kevin says that a much higher percentage of the fry in his fry tanks showed the symptoms. Not sure if it is worth thiamine-injecting salmon at the fish lifts yet. We won't do it this year, but rather wait and see how big the runs are and think about it for next year.

11. **Muskie work.** Several years of surveys on upper Missisquoi River (location of last known population of original Lake Champlain strain muskie population) didn't capture any muskie. Tissues samples collected from angler-caught muskie in the lower Missisquoi area were compared to fry samples provided by NYDEC from their Chautauqua Hatchery. Adult muskie caught in recent years in the Missisquoi River in Vermont originated from NYDEC's Great Chazy stocking of Chautauqua muskie. Tissue samples were also collected from adults captured in lower Otter Creek by electrofishing and angling. These matched Pennsylvania (Pymatuning Reservoir) muskie stocked in upper Otter Creek in the 1980's. VTFWD has decided to stock Chautauqua Lake muskie in Vermont waters (lower Missiquoi River and Missisquoi Bay) to initiate a muskie restoration program. NYDEC agreed to provide the muskie (surplus summer fingerlings) free of charge for 5 years, starting in 2008. VT requested 1,100 in 2008 but only got 250 due to unexpected losses in the Chautauqua Hatchery. In 2009, 10,000 surplus muskie were received and stocked. Assessments will be conducted towards the end of the first 5 years to determine effectiveness, and VT will reassess stocking needs at that point.

12. **Bass coordination.** Emily gave an overview of her bass electrofishing surveys on Champlain. Sampling stations included Point au Fer Reef, Westport, Cumberland Bay, Coldspring Bay, Ticonderoga, LaChute River, and East Creek (Vermont side). Sampling conducted at end of June and early July. A wide variety of species were encountered, including many eels. Vermont provided Emily with copies of Vermont's new bass tournament reporting form for NY to use if they want.

13. **Alternatives Workgroup proposal discussion.** The proposal being considered has not been formally recommended to the FTC by the Alternatives Workgroup at this point, because the Alternatives Workgroup is not federally reauthorized at present. This proposal is being forwarded to the FTC for review and consideration for funding. Eric Howe believes this proposal is very similar to what he did 4 or 5 years ago. They can plug new information generated since then and plug it into their model. Model structure is comparable to what Great Lakes is using, which will put Champlain on same page as Great Lakes with respect to population modeling. Also includes decision modeling, which was not included in Eric's earlier model. Unsure if it would ever result in structural changes to the Lake Champlain sea lamprey control program. The last four years worth of data from sea lamprey control (additional rivers etc) could make for some interesting results from the model. It will allow for ranking of rivers in terms of priority when there are more rivers to be treated than can be done with available resources. Chet – not sure model will tell us anything useful in making management decisions on what rivers should be treated. Larval stream assessments can answer that. Brad – we don't know where all the lamprey in the lake are coming from, and the model may allow us to link larval production/reduction to changes in wounding rates. Model will answer if missing 44,000 lamprey will make a significant difference to wounding rates, for example. Ellen – models can help us improve treatment efficiency and still achieve wounding rate targets, by letting us know how many lampreys need to be killed, or adults distracted from spawning, in order to impact wounding rates. FTC is skeptical of getting valid data from such a model that would help us – not enough knowledge of assumptions and input of model. The proposal author is asking FTC

for a lot of data needed for their model, but we're not sure the data we have fits what they are asking. FTC agrees to not accept the proposal.
Each agency will talk to their respective Management Committee members about the possibility of spending Leahy funds to send a representative to the Great Lakes Reduction in Reproduction Task Force (RRTF) sea lamprey meeting, held in Michigan, twice per year, as a compliment to our alternatives research efforts.

14. **Publishing Strategic Plan.** Has been approved by the Policy Committee. Do we want to publish this, or just print it and staple it? Brad had an example of the recently printed USFWS Northeast Regional Fisheries Program Strategic Plan. USFWS has a print shop in Hadley that can do it for a low price. Good to have it in a tangible format. It would be around $2,000 for 500 copies through the USFWS print office, depending on the number of photos.

Action Item: Ellen will find out a cost to have the Great Lakes Fishery Commission print 200 to 500 copies of our Strategic Plan as part of their Technical Reports series.

15. **Additional Items.** ***Emily*** – Policy Committee requested us to put together a staffing needs chart, with tasks and jobs, names, and time required for various jobs. Draft version is together. Emily, Brad, Brian, and Chet will review. ***Brian*** – Doug Facey is planning a Lake Champlain Research Consortium Conference for June 2010, with Dr. John Casselman from the Ontario Ministry of Natural Resources as keynote speaker. Doug would also like to print a Special Lake Champlain Issue of the Journal of Great Lakes Research.

16. **Next meeting** is scheduled for January 7, 2010.

17. Meeting adjourned at 2:33pm.

Mean catch per 55 minute trawl (CPUE with 95% confidence interval) of rainbow smelt in 2009 and comparison to long-term mean and medianCPUE.

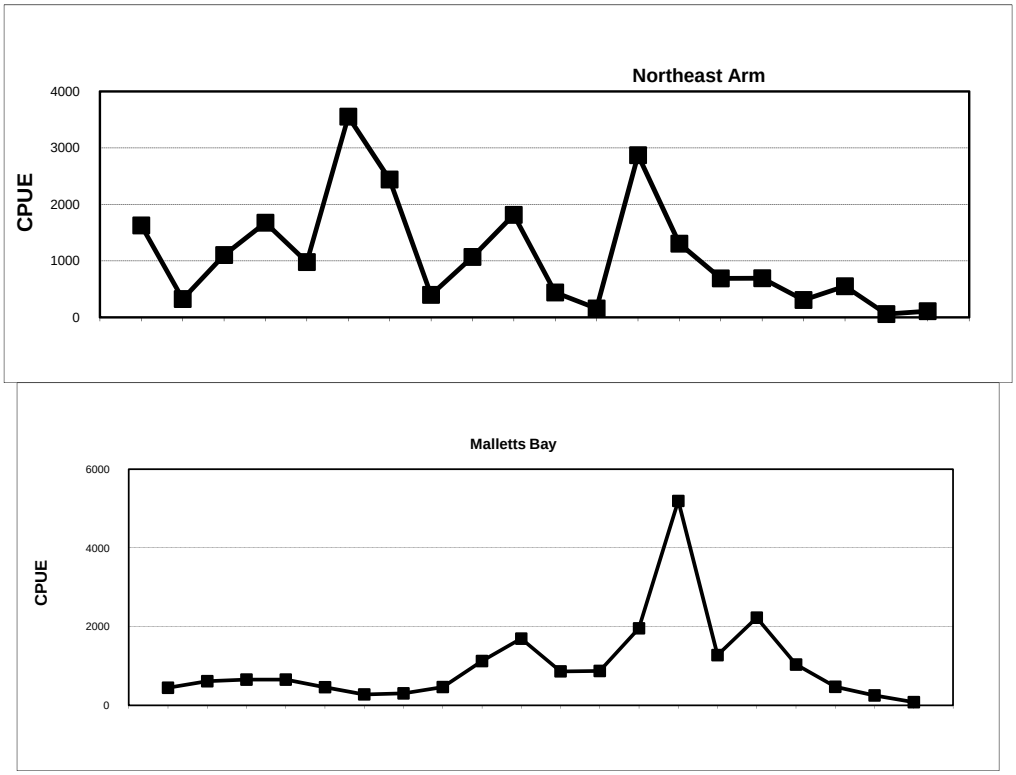
Station	Number of trawls	CPUE	Mean	Median	N years
Main Lake					
Barber Point	4	301 ± 211	258	206	16
Juniper Island	4	400 ± 79	172	97	20
Valcour Island	4	248 ±52	268	138	10
Malletts Bay					
Malletts Bay	4	82 ± 41	1047	654	20
Inland Sea					
Northeast Arm	4	108 ± 14	1108	835	20

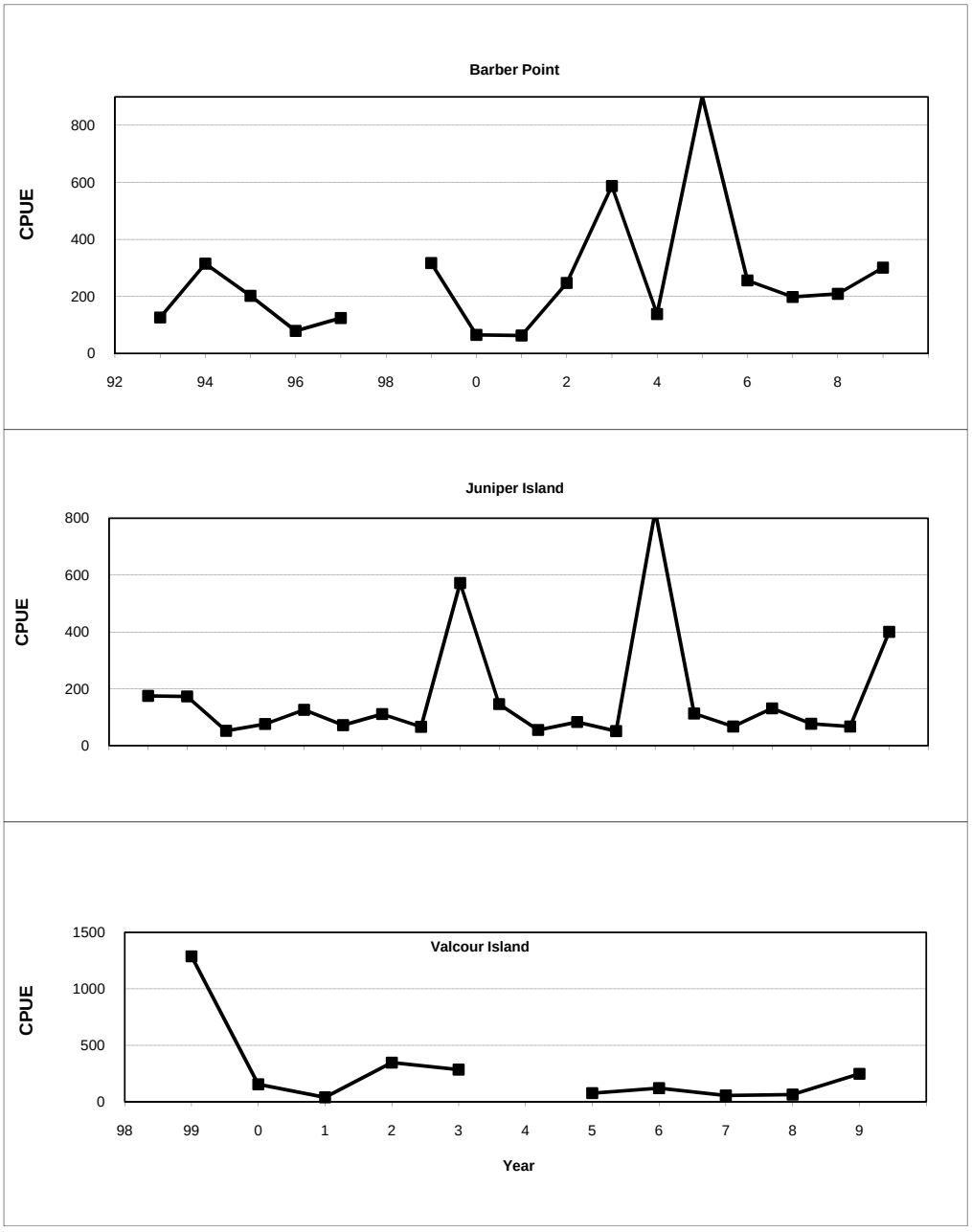
Mean and median CPUE 1990-2003.

	Barber	Juniper	Valcour	Malletts	NE Arm
Mean	213	185	423	1113	1411
Median	164	97	285	654	1204
n	10	14	5	14	14

Mean and median CPUE 2004-2009.

	Barber	Juniper	Valcour	Malletts	NE Arm
Mean	334	143	113	891	401
Median	233	95	77	754	429
n	6	6	6	6	6

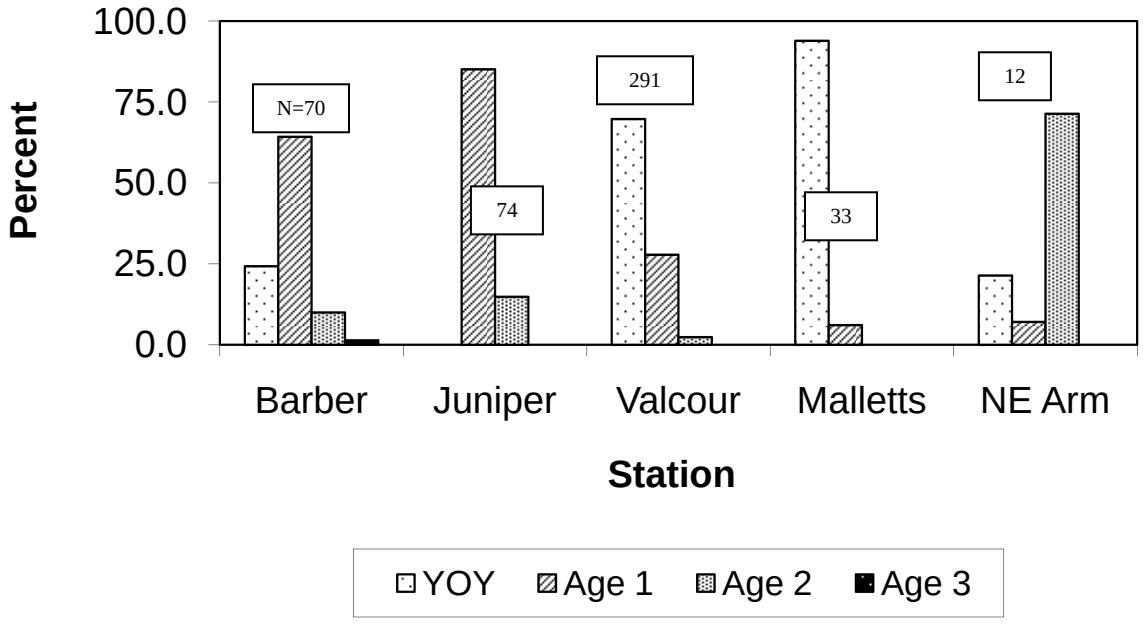

Northeast Arm
CPUE
4000
3000
2000
1000
0
Malletts Bay
CPUE
6000
4000
2000
0


Barber Point
CPUE
800
600
400
200
0
92
94
96
98
0
2
4
6
8
Juniper Island
CPUE
800
600
400
200
0
Valcour Island
CPUE
1500
1000
500
0
98
99
0
1
2
3
4
5
6
7
8
9
Year

Floating gill net catch per 4 hour set (expanded from total minutes fished) of alewife in 2008. YOY = young of year; YAO = yearling and older.

Station	Sample No.	YOY	YAO
Main Lake			
Barber Point	FGN08080401	2.5	0
Potash Bay	FGN08080501	16.6	60.7
Juniper Island	FGN08072101	0	101.6
Valcour Island	FGN08081201	305.2	155.2
Malletts Bay			
Malletts Bay	FGN08081101	33.8	2.2
Inland Sea			
Northeast Arm	FGN08072801	0	0
Northeast Arm	FGN08073001	0.7	7.4

Age composition by station of alewife collected by floating gill net in 2008. Barber Point and Potash Bay combined.



2009 – Forage Fish Assessment – Acoustics